

**Amendments to the Claims:**

1. (Currently amended) An apparatus for orienting a crystalline body during radiation diffractometry, the apparatus comprising:  
a frame comprising:  
a first member adapted to support said frame relative to a source of radiation; and  
a second member movably connected to said first member; and  
an engagement member carried by said second member for engaging a predetermined portion of the crystalline body to thereby define the angle at which incident radiation will impinge upon the crystalline body

wherein said second member is movably connected to said first member such that movement of said second member relative to said first member alters an angular position of said engagement member with respect to said first member.

2. (Original) An apparatus according to Claim 1 wherein said frame further comprises a third member for locking said first and second members in position with respect to one another.

3. (Original) An apparatus according to Claim 1 wherein said first and second members of said frame are rotatably connected.

4. (Original) An apparatus according to Claim 1 wherein each of said first and second members comprises indicia to facilitate positioning of said first and second members relative to one another.

5. (Original) An apparatus according to Claim 1 wherein said second member defines an aperture for viewing the engagement of the predetermined portion of the crystalline body by said engagement member.

6. (Original) An apparatus according to Claim 1 wherein said second member comprises at least one support for engaging another portion of the crystalline body.

7. (Original) An apparatus according to Claim 1 wherein said first member comprises a base for supporting said frame relative to the source of the radiation.

8. (Original) An apparatus according to Claim 1 wherein said engagement member is threadably connected to said second member.

9. (Currently amended) An apparatus for orienting a crystalline body during radiation diffractometry, the apparatus comprising:

a frame for supporting at least a portion of the crystalline body during radiation diffractometry, said frame comprising a base adapted to support said frame relative to a source of radiation, said frame also comprising a central portion and at least two arms extending outwardly said central portion, wherein one of said arms is connected to said base; and

an engagement member carried by another of said arms of said frame for engaging a predetermined portion of the crystalline body, said engagement member extending at a non-orthogonal angle relative to said base.

10. (Canceled)

11. (Currently amended) An apparatus according to Claim 9 wherein said at least two arms of said frame ~~comprises a central portion and~~ first, second and third arms extending outwardly from said central portion, wherein said first arm is connected to said base and said third arm carries said engagement member.

12. (Original) An apparatus according to Claim 11 wherein said third arm defines an axis extending through said central portion and bisecting an angle defined between said first and second arms.

13. (Original) An apparatus according to Claim 9 wherein said engagement member extends at an angle of 45° with respect to said base.

14. (Original) An apparatus according to Claim 9 wherein said frame comprises at least one support for engaging another portion of the crystalline body.

15. (Original) An apparatus according to Claim 9 wherein said engagement member is threadably connected to said frame.

Claims 16 – 24 (Canceled)

25. (Currently amended) A method for orienting a crystalline body during radiation diffractometry, the method comprising:

providing a frame having first and second members movably connected to one another;  
positioning the second member of the frame relative to the first member of the frame which is adapted to support said frame relative to a source of radiation; and

engaging a predetermined portion of the crystalline body with an engagement member carried by the second member of the frame to thereby define the angle at which the incident radiation will impinge upon the crystalline body

wherein positioning the second member relative to the first member comprises altering the angular position of the engagement member with respect to the first member.

26. (Original) A method according to Claim 25 wherein positioning the second member of the frame comprises positioning the second member of the frame relative to the first member of the frame based upon a predefined angular offset between reference and target planes defined by the crystalline body.

27. (Original) A method according to Claim 25 further comprising locking the first and second members once the second member is positioned relative to the first member.

28. (Original) A method according to Claim 25 further comprising supporting at least one end of the crystalline body with the frame while the predetermined portion of the crystalline body is engaged with the engagement member.

29. (Original) A method according to Claim 25 wherein engaging the predetermined portion of the crystalline body with the engagement member comprises threadably advancing the engagement member into engagement with the predetermined portion of the crystalline body.